BRUHATH BANGALORE MAHANAGARA PALIKE

Name of Work: Asphalting to roads at Jyothinagara and Muniswamappa layout and surrounding areas in ward no: 03 Yelahanka Satellite Town Sub division

Est Cost Rs. 200 Lakhs

Sl No	Description	No	L	B	D	Qty	Unit	Rate	Amount
1	KSRRB 300-1 Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications. (Page No 143 Item no 19 1of KPWD SR Bangalore Circle (2018-19) Lead 5km								
	BR Rs.		130.00						
	Lead and Lift Charges		69.80						
	Add AW 6%		11.99						
	Total Rs.		211.79						
	For RCC Drain								
	Sainagar								
	1st main West side	1	234.00	1.10	0.90	231.66			
	1st main East side	1	178.00	1.10	0.95	186.01			
	Cross road Northen Side	1	13.00	1.10	0.90	12.87			
	Cross road Southern Side	1	25.00	1.10	0.90	24.75			
	BHEL Layout								
	6th cross West side	1	107.00	1.10	0.90	105.93			
	6th cross East side	1	107.00	1.10	0.90	105.93			
	Brundavan Layout								
	1st cross East side	1	13.50	1.10	0.85	12.62			
	For Kerb Stone								
	Sainagar								
	1st main West side	1	234.00	0.20	0.20	9.36			
	1st main East side	1	178.00	0.20	0.20	7.12			
	Cross road Northen Side	1	13.00	0.20	0.20	0.52			
	Cross road Southern Side	1	25.00	0.20	0.20	1.00			
	BHEL Layout								
	6th cross West side	1	107.00	0.20	0.20	4.28			
	6th cross East side	1	107.00	0.20	0.20	4.28			
	Culvert								
		1	7.30	1.40	0.90	9.20			
						715.53	Cum	211.79	151540.77
2	KSRRB M2900-1 Plain cement concrete M10 mix with crushed stone aggregate 40mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing including cost of materials, labour, HOM complete as per specifications (Page No 254 Item no 34 1of KPWD SR Bangalore Circle (2018-19)								
	BR Rs		4226.00						
	Add AW 6%		253.56						
	Total Rs.		4479.56						
	For RCC Drain								
	Sainagar								
	1st main West side	1	234.00	1.10	0.15	38.61			
	1st main East side	1	178.00	1.10	0.15	29.37			
	Cross road Northen Side	1	13.00	1.10	0.15	2.15			
	Cross road Southern Side	1	25.00	1.10	0.15	4.13			
	BHEL Layout								
	6th cross West side	1	107.00	1.10	0.15	17.66			
	6th cross East side	1	107.00	1.10	0.15	17.66			
	Brundavan Layout								
	1st cross East side	1	13.50	1.10	0.15	2.23			
	For Kerb Stone								
	Sainagar								
	1st main West side	1	234.00	0.20	0.10	4.68			
	1st main East side	1	178.00	0.20	0.10	3.56			
	Cross road Northen Side	1	13.00	0.20	0.10	0.26			
	Cross road Southern Side	1	25.00	0.20	0.10	0.50			
	BHEL Layout								
	6th cross West side	1	107.00	0.20	0.10	2.14			
	6th cross East side	1	107.00	0.20	0.10	2.14			
	Culvert								
		1	7.30	1.40	0.15	1.53			

Sl No	Description	No	L	B	D	Qty	Unit	Rate	Amount
						126.60	Cum	4479.56	567114.54
3	KSRRB M2200-6. Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification. MORTH Specification No.1600 & 2200 (Page No 229 Item no 28 8 2 of KPWD SR Bangalore Circle (2018-19)								
	DR Rs.	68233.00							
	Add AW 6%	4093.98							
	Total Rs.	72326.98							
	Steel for drain		223.17	0.06		13.39			
	Steel for Culvert		4.02	0.10		0.38			
						13.77	Tonne	72326.98	996060.05
4	Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs. With 20mm and down size granite metal course aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well competed for walls and bottom including centring shuttering cost of material HOM of machinary curing etc., complete excluding cost of steel as per MORTH specification no. 1500, 1700, 2200 including cost of material labour HOM complete as per specification. (Page No 271 Item no 37 59 2 of KPWD SR Bangalore Circle (2018-19)								
	DR Rs.	6670.00							
	Add AW 6%	400.20							
	Total Rs.	7070.20							
	For RCC Drain								
	Raft								
	Salnagar								
	1st main West side	1	234.00	1.00	0.15	35.10			
	1st main East side	1	178.00	1.00	0.15	26.70			
	Cross road Northen Side	1	13.00	1.00	0.15	1.95			
	Cross road Southern Side	1	25.00	1.00	0.15	3.75			
	BHEL Layout								
	6th cross West side	1	107.00	1.00	0.15	16.05			
	6th cross East side	1	107.00	1.00	0.15	16.05			
	Brundavan Layout								
	1st cross East side	1	13.50	1.00	0.15	2.03			
	Wall								
	Salnagar								
	1st main West side	2	234.00	0.15	0.60	42.12			
	1st main East side	2	178.00	0.15	0.60	32.04			
	Cross road Northen Side	2	13.00	0.15	0.60	2.34			
	Cross road Southern Side	2	25.00	0.15	0.60	4.50			
	BHEL Layout								
	6th cross West side	2	107.00	0.15	0.60	19.26			
	6th cross East side	2	107.00	0.15	0.60	19.26			
	Brundavan Layout								
	1st cross East side	2	13.50	0.15	0.50	2.03			
	Culvert								
	Raft	1	7.30	1.40	0.25	2.56			
	Wall	2	7.30	0.25	0.40	1.46			
						227.19	Cum	7070.20	1606243.39
5	Supplying and fixing precast reinforced concrete slab 10cm thick of mix M20 using 20mm and downsize graded granite metal using reinforcement 10mm dia steel at 150mm C/c both ways cost, transportation, hire charges of machinery, machine cutting the vertical face to get plain even surface etc. complete with all leads and lift conveyance charges, labour charges inclusive of cost of all materials (Data Rate enclosed)								
	Data Rate Rs.	2337.00							
	For RCC Drain								
	Salnagar								
	1st main West side	1	234.00	0.90		210.60			
	1st main East side	1	178.00	0.90		160.20			
	Cross road Northen Side	1	13.00	0.90		11.70			
	Cross road Southern Side	1	25.00	0.90		22.50			
	BHEL Layout								

Sl No	Description	No	L	B	D	Qty	Unit	Rate	Amount
	6th cross West side	1	107.00	0.90		96.30			
	6th cross East side	1	107.00	0.90		96.30			
	Brundavan Layout								
	1st cross East side	1	13.00	0.90		11.70			
	Deduct old slabs	-.32	0.90	0.60		-17.28			
						592.02	Sqm	2337.00	1383550.74
6	Providing and laying Pre Cast Cover slabs of 250mm thick of mix M20 using graded granite jelly 20mm with steel reinforcement, including fixen work, lift charges, curing and concrete finished surfaces on both side etc. complete as per drawingand direction of Engineer-in-charge of work (Data Rate enclosed)								
	Data Rate Rs.	5418.00							
	Culvert	1	7.30	1.20		8.76			
						8.76	Sqm	5418.00	47461.68
7	Providing and fixing Pre cast solid concrete kerb stones of size 450 x 200 x 400 mm made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete. (Page No 27 Item no 5.29.1 of KPWD SR Bangalore Circle (2018-19)								
	BR Rs.	450.00							
	Add AW 6%	27.00							
	Total Rs.	477.00							
	Salnagar								
	1st main West side	1	234.00			520.00			
	1st main East side	1	178.00			396.00			
	Cross road Northen Side	1	13.00			29.00			
	Cross road Southern Side	1	25.00			55.00			
	BHEL Layout								
	6th cross West side	1	107.00			238.00			
	6th cross East side	1	107.00			238.00			
						1476.00	Nos	477.00	704052.00
8	KSRRB 800-1 Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (Page No 180 Item no 24.1 of KPWD SR Bangalore Circle (2018-19)								
	BR Rs.	80.00							
	Add AW 6%	4.80							
	Total Rs.	84.80							
	For Kerb Stone								
	Salnagar								
	1st main West side	1	234.00		0.30	70.20			
	1st main East side	1	178.00		0.30	53.40			
	Cross road Northen Side	1	13.00		0.35	4.55			
	Cross road Southern Side	1	25.00		0.30	7.50			
	BHEL Layout								
	6th cross West side	1	107.00		0.30	32.10			
	6th cross East side	1	107.00		0.30	32.10			
						199.85	Sqm	84.80	16947.28
9	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications. MORTH Specification No 301 (Page No 143 Item no 19.14 of KPWD SR Bangalore Circle (2018-19) Lead 5km								
	BR Rs.	41.00							
	Lead and Lift Charges	12.80							
	Add AW 6%	3.23							
	Total Rs.	57.03							
	For Asphalt Road								
	Munieswamappa Layout								
	1st main Road	1	320.00	6.00	0.35	672.00			
	Cross Road	1	25.00	5.50	0.35	48.13			
	2nd main Road	1	310.00	5.80	0.30	539.40			
	Jyothi nagar Cross Roads								
		1	345.00	5.60	0.35	676.20			
		1	335.00	6.80	0.35	797.30			
						2733.03	Cum	57.03	155858.95

Sl No	Description	No	L	B	D	Qty	Unit	Rate	Amount
10	KSRRB 300-58. Compaction of original ground by mechanical means including filling in depression occuring during rolling including cost of all labour, TOM complete as per specifications. MORTH / Chapter 3 (Page No 143 Item no 19 64 of KPWD SR Bangalore Circle (2018-19)								
	BR Rs.		6.00						
	Add AW 6%		0.36						
	Total Rs.		6.36						
	For Asphalt Road								
	Munilswamappa Layout								
	1st main Road	1	320.00	6.00		1920.00			
	Cross Road	1	25.00	5.50		137.50			
	2nd main Road	1	310.00	5.80		1798.00			
	Jyothi nagar Cross Roads								
		1	345.00	5.60		1932.00			
		1	335.00	6.80		2278.00			
						8065.50	Sqm	6.36	51296.58
11	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/trap/basalt material, mixing by mix in place method by rotavator at OMC,spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications. Clause 401 of MORTH V Revision. (Page No 153 Item no 20.6 of KPWD SR Bangalore Circle (2018-19)								
	BR Rs		1750.00						
	Add AW 6%		105.00						
	Total Rs.		1855.00						
	For Asphalt Road								
	Munilswamappa Layout								
	1st main Road	1	320.00	6.00	0.15	288.00			
	Cross Road	1	25.00	5.50	0.15	20.63			
	2nd main Road	1	310.00	5.80	0.15	269.70			
	Jyothi nagar Cross Roads								
		1	345.00	5.60	0.15	289.80			
		1	335.00	6.80	0.15	341.70			
						1209.83	Cum	1855.00	2244225.38
12	KSRRB M400-17 Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406. (Page No 155 Item no 20.18 of KPWD SR Bangalore Circle (2018-19)								
	BR Rs.		1888.00						
	Add AW 6%		113.28						
	Total Rs		2001.28						
	For Asphalt Road								
	Munilswamappa Layout								
	1st main Road	1	320.00	6.00	0.225	432.00			
	Cross Road	1	25.00	5.50	0.225	30.94			
	2nd main Road	1	310.00	5.80	0.225	404.55			
	Jyothi nagar Cross Roads								
		1	345.00	5.60	0.225	434.70			
		1	335.00	6.80	0.225	512.55			
						1814.74	Cum	2001.28	3631797.86
	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications. Clause 502 of MORTH V revision (Page No 158 Item no 21.6 of KPWD SR Bangalore Circle (2018-19)								
	BR Rs.		28.00						
	Add AW 6%		1.68						

Sl. No	Description	No	L	B	D	Qty	Unit	Rate	Amount
13	Total Rs.		29.68						
	For Asphalt Road								
	Muniswamappa Layout								
	1st main Road	1	320.00	6.00		1920.00			
	Cross Road	1	25.00	5.50		137.50			
	2nd main Road	1	310.00	5.80		1798.00			
	Jyothi nagar Cross Roads								
		1	345.00	5.60		1932.00			
		1	335.00	6.80		2278.00			
						8065.50	Sqm	29.68	239384.04
14	KSRRB 500-7 Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications, Clause 503 of MORTH V revision (Page No 158 Item no 21.7 of KPWD SR Bangalore Circle (2018-19)								
	BR Rs.		12.00						
	Add AW 6%		0.72						
	Total Rs.		12.72						
	For Asphalt Road								
	Muniswamappa Layout								
	1st main Road	1	320.00	6.00		1920.00			
	Cross Road	1	25.00	5.50		137.50			
	2nd main Road	1	310.00	5.80		1798.00			
	Jyothi nagar Cross Roads								
		1	345.00	5.60		1932.00			
		1	335.00	6.80		2278.00			
						8065.50	Sqm	12.72	102593.16
15	KSRRB M500-17 Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 505 of MORTH V revision using 40/60 TPH capacity HMP with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen (Page No 160 Item no 21.17.6 of KPWD SR Bangalore Circle (2018-19)								
	BR Rs.		6470.00						
	Add AW 6%		388.20						
	Total Rs.		6858.20						
	For Asphalt Road								
	Muniswamappa Layout								
	1st main Road	1	320.00	6.00	0.05	96.00			
	Cross Road	1	25.00	5.50	0.05	6.88			
	2nd main Road	1	310.00	5.80	0.05	89.90			
	Jyothi nagar Cross Roads								
		1	345.00	5.60	0.05	96.60			
		1	335.00	6.80	0.05	113.90			
						403.28	Cum	6858.20	2765740.61
16	Providing and laying bituminous concrete 40mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015 using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminus binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic)(Page No 171 Item no 21.78.12 of KPWD SR Bangalore Circle (2018-19)								
	BR Rs.		7594.00						
	Add AW 6%		455.64						

Sl No	Description	No	L	B	D	Qty	Unit	Rate	Amount
	Total Rs.		8049.64						
	For Asphalt Road								
	Muniswamappa Layout								
	1st main Road	1	320.00	6.00	0.03	57.60			
	Cross Road	1	25.00	5.50	0.03	4.13			
	2nd main Road	1	310.00	5.80	0.03	53.94			
	Jyothi nagar Cross Roads								
		1	345.00	5.60	0.03	57.96			
		1	335.00	6.80	0.03	68.34			
						241.97	Cum	8049.64	1947731.14
17	KSRRB M800-13 Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC 35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 (Page No 182 Item no 24.15 of KPWD SR Bangalore Circle (2018-19)								
	BR Rs.		429.00						
	Add AW 6%		25.74						
	Total Rs.		454.74						
	For Asphalt Road								
	Muniswamappa Layout								
	1st main Road	2.5	320.00	0.10		80.00			
	Cross Road	2.5	25.00	0.10		6.25			
	2nd main Road	2.5	310.00	0.10		77.50			
	Jyothi nagar Cross Roads								
		2.5	345.00	0.10		86.25			
		2.5	335.00	0.10		83.75			
						333.75	Sqm	454.74	151769.48
18	KSRRB M800-35 Supply and Installtion of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/ NH/33023/10/97 – DO III Dt 11.06. 1997 The height, width and length shall not exceed 50 mm, 100 mm and 102 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 degree The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19 mm and height not less than 30 mm) from the body is to be a minimum value of 500 Kg. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturer's recommendation and complete as directed by the engineer. (Page No 187 Item no 24.41 of KPWD SR Bangalore Circle (2018-19)								
	BR Rs.		337.00						
	Add AW 6%		20.22						
	Total Rs.		357.22						
	For Asphalt Road								
	Muniswamappa Layout								
	1st main Road	3	40.00			120.00			
	2nd main Road	3	40.00			120.00			
	Jyothi nagar Cross Roads								
		3	40.00			120.00			
		3	40.00			120.00			
						480.00	Nos	357.22	171465.60

Sl No	Description	No	L	B	D	Qty.	Unit	Rate	Amount
								Sub Total Rs	16934813.65
12	GST Charges @ 12%								2032177.64
13	KRIDL Charges @ 4%								677392.55
14	DPR Charges @ 1%								169348.14
15	PMC Charges @ 1%								169348.14
16	Miscellaneous and Unforeseen work Charges								16919.90
								Grand Total Rs.	20000000.00
	(Rupees Two Hundred Lakhs Only)								

CERTIFICATE

1) The work spot has been inspected and found to be necessary
2) The work spot comes under BBMP limits
3) The provisions made in this estimate are necessary and minimum
4) The rates adopted are as per PWP,WTD,SR of 2018-19
5) This work is not split up

Assistant Engineer
Ward No 03
BBMP

Executive Engineer
Yelahanka Division
BBMP

Assistant Executive Engineer
Yelahanka Satellite Town Sub Division
BBMP

SHRIYA CONSTRUCTION AND CONSULTANCY

...cutive Sanction for Rs. 200.00 Lakhs
Two crore only

is accorded under head P-3747
CM-Navanagarothana 110 villages
grants (Annexure 07)

Registered as per A... Subject
conditions of A...

EE/YNK/GU/2019-20 ... 7/11/2019

Executive Engineer

Technical Sanction
Accorded For R.S.R. calculations
Head of A/C P-3747
CER NO : 206 Dt: 05.11.2019

EA CE (YNK)